

033134.2111UTL1

REMARKS

Preliminarily, Applicants kindly thank the Examiner for her helpful telephonic comments on Friday, April 18, 2003.

Upon entry of the above amendment, claims 26-28, 30-32, 34-37 and 45-48 will be pending. This amendment is introduced for the sole purpose of facilitating prosecution and advancing the case to issuance, and not for reasons related to patentability, but nevertheless fortuitously has the effect of mooted the pending rejections. Claim 26 has been amended to clarify that at least one of the fluorophores is indirectly attached to the binding pairs. Claims 27 and 47 have been amended to remove the limitation that said direct linkage be effected through a covalent bond. These amendments add no new matter and are fully supported by the specification and claims as originally filed. Specifically, see page 6, lines 13-24 for support. Applicants reserve the right to prosecute the original claims in a future application. New claim 48 has been added. Claims 28, 30-32, 34-37 and 45-46 remain unchanged.

35 USC 103 (a) REJECTION

Claims 26-28, 30-31 and 45-47 stand rejected under 103 (a) as allegedly obvious over Chick et al., US Patent 6,040,194, in view of Bernard et al. The Examiner contends that Chick discloses using FRET for analyte detection wherein the composition includes two components, one of which is labeled with an energy absorbing donor molecule and the other is labeled with an energy absorbing acceptor molecule. Furthermore, the Examiner contends that the donor and acceptor pair can be fluorophores and that Chick et al. does not expressly disclose that the donor-acceptor pair be fluorescein and cyanine 5, but that Bernard et al. discloses binding pairs wherein a member of the binding pair is directly attached to fluorescein and the other is directly attached to cyanine 5.

Applicants respectfully disagree, especially to the extent that this rejection could be held to apply to the claims as amended. In order to establish a prima facie case of obviousness, the burden is on the Examiner to provide an explanation of why one of ordinary skill in

033134.2111UTL1

the art at the time the invention was made would have been motivated to make the proposed modifications. In order for this to be shown, the alleged art must teach or suggest all the claim limitations and the Examiner must provide a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of such teaching(s).

Chick et al. reports a composition for the purpose of detecting the presence of an analyte within an individual. Chick's composition contains a reagent that includes two components that can be fluorophores, only one of which is labeled with an energy-absorbing donor molecule and the other of which is labeled with an energy-absorbing acceptor molecule. The donor and acceptor molecules are required to have overlapping excited state energy levels, wherein a change in fluorescence indicates the presence or absence of an analyte. See column 3, lines 9-24.

Bernard et al. reports the use a Cy5 labeled primer and 3'-fluorescein-labeled nucleic acid probe for the detection of point mutations and genotyping. Bernard et al. further reports that the emission peak for fluorescein is 520 nm while that of Cy5 is 670 nm. See page 102, second column.

Neither Chick nor Bernard, alone or combined, discloses an indirect linkage of the fluorophores to the reagent components as claimed presently. Given the requirement in Chick that the excited state energy level of the donor must overlap with the excited state energy level of the acceptor (see column 6, lines 19-21) and given the teaching in Bernard that the fluorescence of fluorescein is set forth as being within the range of 520-560 nm, and that of Cy5 as being within the range of 655-695 nm, Applicants contend that these two references are not capable of being combined to arrive at the claimed invention, and that a prima facie case of obviousness is thus not established.

Accordingly, Applicants respectfully submit that claims 26-28, 30-31 and 45-47 are unobvious and in condition for allowance, and Applicants respectfully request early Notice to that effect.

.033134.2111UTL1

Claims 34-37 stand rejected under 103 (a) as allegedly being obvious over Chick et al., 6,040,194, in view of Bernard et al., in further view of Dykens et al., 6,280,981. The Examiner contends that Chick et al. and Bernard et al. can be combined as stated above and that Dykens discloses the proximity distance of donor-acceptor molecules such that it would have been obvious to include the proximity distance in Dykens et al. with the composition of Chick et al. as modified by Bernard et al.

In light of the amendment to claim 26, and for the reasons stated above, Applicants respectfully submit that the rejection should also be withdrawn and that claims 34-37 are in condition for allowance.

CONCLUSION

Applicants believe that all claims are in condition for allowance and respectfully request early Notice thereof.

Applicants further authorize the debiting of deposit account number 01-0430 for \$110.00 (for petition for one month extension of time) or, if incorrect, for the correct amount.

Should any issues or questions remain, the Examiner is encouraged to telephone the undersigned at 858.485.0513.

Respectfully submitted,

Dated:

4/21/03

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033134.2111UTL1

MARKED UP VERSION

26. (Thrice Amended) A composition comprising a first member of a binding pair [directly or indirectly] attached to fluorescein and a second member of the binding pair [directly or indirectly] attached to cyanine 5, wherein the first and second members of the binding pair are associated so that the fluorescein and cyanine 5 are in fluorescence resonance energy transfer proximity to each other, [wherein said indirect attachment is effected through a linking moiety selected from the group consisting of an antibody, antibody fragment, biotin and streptavidin, with the proviso that] and wherein for at least one member of the binding pair said attachment is [must be] indirect[ly attached to fluorescein or cyanine 5].

27. (Twice Amended) The composition of claim 26, wherein the first member of the binding pair is directly attached to fluorescein [, and the direct attachment is effected through a covalent bond].

47. (New) The composition of claim 26, wherein the second member of the binding pair is directly attached to cyanine 5[, and the direct attachment is effected through a covalent bond].

48. (New) The composition of claim 26, wherein said indirect attachment is effected through a linking moiety selected from the group consisting of an antibody, antibody fragment, biotin and streptavidin.